

This Page Is Inserted by IFW Operations
and is not a part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

**As rescanning documents *will not* correct images,
please do not report the images to the
Image Problem Mailbox.**

LISTING OF CLAIMS

Please amend claims 1, 5-8, 10-11, 13-15, 27-28, and 31-32 as set forth below.

Please cancel claims 9, 18-26, and 33-40 without prejudice to their introduction in a continuation and/or divisional application. Please add new claims 41-50.

-
1. (Currently amended) An applicator for applying at least a partial coating of a solution to a filament, comprising:
- an applicator surface operable to at least partially coat a filament with a solution;
 - a first ~~container~~ reservoir operable to supply the solution to the applicator surface, a volume of the solution in the first ~~container~~ reservoir corresponding to a solution level in the first ~~container~~ reservoir;
 - a second ~~container~~ reservoir operable to contain a supply of solution in fluid communication with the solution in the first ~~container~~ reservoir such that the solution in the second ~~container~~ reservoir has a solution level indicative of the solution level of the solution in the first ~~container~~ reservoir; and
 - a detector for determining the solution level within the second ~~container~~ reservoir, the detector operable to control an adjustment of the volume of the solution in the first reservoir ~~container such that the solution level in the first container is maintained within a predetermined range of levels.~~
2. (Original) The applicator of claim 1, wherein the filament is a glass filament and the solution is a glass fiber sizing composition.

3. (Original) The applicator of claim 1, wherein the detector is selected from an electrical detector, a mechanical detector, an energy wave detector, an ultrasonic detector, and a magnetic detector.

4. (Original) The applicator of claim 1, wherein the detector is a non-surface contacting detector.

5. (Currently amended) The applicator of claim 1, further comprising a flow controller positionable between a source of the solution and the first ~~container~~ reservoir to permit flow of the solution from the source to the first ~~container~~ reservoir, and wherein the detector is operable to generate a signal to the flow controller to control the flow of the solution to the first ~~container~~ reservoir.

6. (Currently amended) The applicator of claim 1, wherein the solution level in the first reservoir is maintained within a predetermined range of levels, wherein the first ~~container~~ reservoir includes an overflow level, and wherein the predetermined range of levels is below the overflow level.

7. (Currently amended) The applicator of claim 6, wherein the overflow level corresponds to a height of the ~~container~~ first reservoir such that any solution exceeding the overflow level is prevented from returning to the first ~~container~~ reservoir.

AI
edited

8. (Currently amended) The applicator of claim 1, wherein the applicator surface further comprises an endless belt rotatably supported by at least a first support and a second support, wherein the first support is at least partially positionable below the solution level of the first reservoir and the second support is positionable adjacent to a contact area between the applicator surface and the filament.

9. (Cancelled)

10. (Currently amended) The applicator of claim 1, further comprising shielding for covering the first ~~container~~ reservoir and directing excess external liquid on the shielding away from the solution in the first ~~container~~ reservoir, the shielding having an opening, wherein the applicator surface projects from the opening such that the filament is contactable with the applicator surface at the opening.

A1
cont'd

11. (Currently amended) The applicator of claim 10, wherein the first ~~container~~ reservoir includes an overflow level corresponding to a height of the first ~~container~~ reservoir such that any solution exceeding the overflow level is prevented from returning to the first ~~container~~ reservoir and the detector is a non-surface contacting detector, and further comprising a flow controller positionable between a source of the solution and the first ~~container~~ reservoir to permit flow of the solution from the source to the first ~~container~~ reservoir, and wherein the detector is operable to generate a signal to the flow controller to control the flow of the solution to the first ~~container~~ reservoir.

12. (Original) The applicator of claim 11, wherein the filament is a glass filament and the solution is a glass fiber sizing composition.

AI
control

13. (Currently amended) The applicator of claim 10, wherein the shielding further comprises side walls and a top wall of the first ~~container~~ reservoir, wherein at least one of the side walls includes an upper edge and the top wall includes a lower edge, and wherein a spacing between the upper edge and lower edge defines the opening.

14. (Currently amended) The applicator of claim 10, wherein the shielding further comprises at least one wall defining a top wall of the first ~~container~~ reservoir, the top wall further comprising a lower edge defining an upper end of the opening, and further comprising a gutter positioned along the top wall in close proximity to the opening such that the gutter carries the external liquid away from the opening.

15. (Currently amended) The applicator of claim 10, wherein the shielding further comprises at least one wall extending over the first reservoir container, the at least one wall comprising a plurality of edges, wherein at least a portion of the plurality of edges define at least one edge of the opening.

16. (Original) The applicator of claim 15, wherein the shielding further comprises a deflector positioned above the at least one wall and adjacent to the filament for directing excess liquid away from the opening.

17. (Original) The applicator of claim 15, wherein at least a portion of the at least one wall extends over at least a portion of the applicator surface.

Claims 18-26 (cancelled)

AI
contd

27. (Currently amended) A system for supplying and applying at least a partial coating of a solution to a filament, comprising:

- a main container operable to supply a solution;
- a local ~~container~~ reservoir in fluid communication with the main container for receiving the solution from the main container, a volume of the solution in the local ~~container~~ reservoir corresponding to a solution level in the local ~~container~~ reservoir;
- an applicator surface operable to receive the solution from the local ~~container~~ reservoir and apply an at least partial coating of the solution to the filament;
- an auxiliary ~~container~~ reservoir operable to contain a supply of solution in fluid communication with the solution in the local ~~container~~ reservoir such that the solution in the auxiliary ~~container~~ reservoir has a solution level indicative of the solution level of the solution in the ~~container~~ reservoir;
- a flow controller positionable between the main container and the local ~~container~~ reservoir to control a flow of solution from the main container to the local ~~container~~ reservoir; and
- a detector for monitoring the solution level within the auxiliary ~~container~~ reservoir, wherein the detector is operable to generate a signal to the flow controller in response to the monitored solution level of the auxiliary ~~container~~ reservoir ~~such that the solution level in the local container is maintained within a predetermined range of levels.~~

AI
control

28. (Currently amended) The system of claim 27, further comprising shielding for covering the local ~~container~~ reservoir and directing excess external liquid on the shielding away from the solution in the local ~~container~~ reservoir, the shielding having an opening, wherein the applicator surface projects from the opening such that the filament is contactable with the applicator surface.

29. (Original) The system of claim 28, wherein the detector is a non-surface contacting detector.

30. (Original) The system of claim 29, wherein the filament is a glass filament and the solution is a glass fiber sizing composition.

31. (Currently amended) The system of claim 30, wherein the ~~first local container~~ reservoir includes an overflow level corresponding to a height of the ~~container~~ reservoir such that any solution exceeding the overflow level is prevented from returning to the ~~first local container~~ reservoir, wherein the solution level in the local container is maintained within a predetermined range of levels, and wherein the predetermined range of levels is below the overflow level.

AI
called

32. (Currently amended) The system of claim 30, wherein the applicator surface further comprises an endless belt rotatably supported by at least a first support and a second support, wherein the first support is at least partially positionable below the solution level and the second support is positionable adjacent to a contact area between the applicator surface and the filament, wherein the solution level in the local container is maintained within a predetermined range of levels, and wherein the predetermined range of levels is such that the applicator surface exits the solution at a constant angle when the solution level of the reservoirs is within the predetermined range of levels.

Claims 33-40 (cancelled).

AI
cont'd
41. (New) The applicator of claim 1, wherein the applicator surface further comprises a single roller, wherein the single roller is at least partially submerged below the solution level of the first container.

42. (New) The system of claim 27, wherein the applicator surface further comprises a single roller, wherein the single roller is at least partially submerged below the solution level of the local container.

43. (New) An applicator for applying at least a partial coating of a solution to a filament, comprising:

an applicator surface operable to at least partially coat a filament with a solution;

a first volume of solution having a top surface corresponding to a solution level of the first volume, the first volume of the solution in communication with at least a portion of the applicator surface;

a second volume of the solution having a top surface corresponding to a solution level of the second volume and separate from the top surface of the first volume, the solution level of the second volume being indicative of the solution level of the first volume; and

a detector for determining the solution level of the second volume of the solution, the detector operable to control an adjustment of the first volume of the solution.

44. (New) The applicator of claim 43, wherein the detector is selected from an electrical detector, a mechanical detector, an energy wave detector, an ultrasonic detector, and a magnetic detector.

45. (New) The applicator of claim 43, wherein the detector is a non-surface contacting detector.

AI
control

46. (New) The applicator of claim 43, further comprising a flow controller positionable between a source of the solution and the first volume of solution to permit flow of the solution from the source to increase the first volume solution, and wherein the detector is operable to generate a signal to the flow controller to control the flow of the solution to the first volume of solution.

47. (New) The applicator of claim 43, further comprising shielding for directing excess external liquid on the shielding away from the solution in the first volume, the shielding having an opening, wherein the applicator surface projects from the opening such that the filament is contactable with the applicator surface.

AI
cont
48. (New) The applicator of claim 43, wherein the first and the second volumes of solution are in separate containers.

49. (New) The applicator of claim 43, wherein the second volume of solution is in a second container.

50. (New) The applicator of claim 43, wherein the applicator surface further comprises a single roller, wherein the single roller is at least partially submerged below the top surface of the first volume of the solution.
